

REMARKS

Claims 1-20 are pending in the present application. Claims 1, 5, and 13 have been amended. Claims 1, 5, and 13 are independent claims. The Examiner is respectfully requested to reconsider the outstanding rejections in view of the following remarks.

Acknowledgment of Information Disclosure Statement

In the Reply After Final filed on March 27, 2006, Applicants requested the Examiner to acknowledge the Information Disclosure Statement (IDS) filed on **July 26, 2005**. However, an initialed copy of the corresponding SB08 has not yet been received from the Examiner.

Again, Applicants respectfully request the Examiner to acknowledge the IDS filed on July 26, 2005 and send an initialed copy of the SB08 to the undersigned at the earliest convenience of the Examiner.

Rejection Under 35 U.S.C. § 103

Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0204774 to Keyes et al. (hereafter "Keyes") in view of U.S. Patent No. 4,173,205 to Toelle (hereafter "Toelle"). Furthermore, claim 20 stands rejected under § 103(a) as being unpatentable Keyes and Toelle, and further in view of U.S. Patent No. 5,970,804 to Robbat, Jr. (hereafter "Robbat"). These rejections are respectfully traversed.

Toelle Not Analogous Art

Appellant respectfully submits that the Toelle is not analogous art according to MPEP § 2141.01(a), which states the following:

The Examiner must determine what is 'analogous prior art' for the purpose of analyzing the obviousness of the subject matter at issue. In order to rely on a reference as a basis for rejection of an Applicant's invention, the reference must either be in the field of Applicant's endeavor or, if not, then be reasonably pertinent to the

particular problem with which the inventor was concerned. *In re Oetiker*, 977 F.2d 1443, 24 USPQ 2d 1443, 1445 (Fed. Cir. 1992).

Toelle's invention is directed to a closed loop control system for recirculating exhaust gas in an **internal combustion engine**. This type of control is not related to controlling the operation of a **plant** and, thus, is not in the same field of endeavor as the claimed invention. Furthermore, Applicants respectfully submit that ones of ordinary skill in the art would not find the control of exhaust gas recirculation (EGR) in an internal combustion engine reasonably pertinent to the problem of controlling the operation of a plant.

Lack of Motivation to Combine Keyes and Toelle

In the rejection, the Examiner proposes to modify Keyes to incorporate the look-up table taught by Toelle (see Office Action at page 5). Since the Examiner relies on Keyes' profitability information as the claimed operation efficiency values (see Office Action at page 3), it must be presumed that the Examiner would modify Keyes to store the profitability information in a look-up table, rather than utilizing the economic models to calculate the profitability information in real-time.

However, Applicants respectfully submit that the only way the teachings of Keyes and Toelle could be combined, as proposed by the Examiner, is by utilizing Applicants' disclosure as a blueprint, which is not permitted. *C.R. Bard, Inc. v. M3 Systems, Inc.*, 48 USPQ2d 1225 (Fed. Cir. 1998); *Interconnect Planning Corp. v. Feil*, 227 USPQ 543 (Fed. Cir. 1985); *In re Rouffet*, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998).

The CAFC has stated that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for showing of the teaching or motivation to combine prior art references. *In re Dembiczak*, 50 USPQ2d 1614 (Fed. Cir. 1999). Evidence of a suggestion, teaching or motivation to combine may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or in some cases, from the nature of the problem to be solved. *Dembiczak*, at 1617.

The Prior Art References Themselves

Although Keyes discloses a method/system for controlling a process plant, Keyes discloses nothing with respect to controlling an internal combustion engine. Similarly, although Toelle teaches a closed loop control system for EGR in an internal combustion engine, Toelle does not contemplate controlling a plant. As a result, Applicants respectfully submit that neither Keyes nor Toelle provides a motivation for combining one with the other.

Nature of the Problem to be Solved

Applicant respectfully submits that the problem being solved in Keyes is to optimally control a process plant from a profit or economic standpoint. Conversely, Toelle solves the problem of controlling the generation and emission of noxious oxides of nitrogen (NO_x) for an engine, while maintaining an acceptable level of drivability. Applicants respectfully submit that the problems being solved by Keyes and Toelle are completely different, which is evidence of the non-combinability of these two references.

Knowledge of One of Ordinary Skill in the Art

As suggested in *Dembiczak*, the final source for suggestion, teaching or motivation could be the knowledge of one of ordinary skill in the art. Regardless of the source, the Examiner is still required to provide actual evidence. It must be based on specific, objective evidence of record. *In re Lee*, 61 USPQ2d 1430 (Fed. Cir. 2002). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence. Broad denials and conclusory statements are not sufficient to establish a genuine issue of material fact. *Dembiczak* at 1617.

The Examiner asserts that it would have been obvious to one of ordinary skill in the art to modify Keyes, in view of the teachings of Toelle, to include a look-up table of optimal values for outputting parameters to control a plant “for the purpose of completing a close-loop method of control capable of being accurately programmed for any desired set of operating conditions (Office Action at page 5, citing Toelle at col. 3, lines 64-66). However, the Examiner fails to

provide any evidence or explanation as to why the inclusion of a look-up table would increase the accuracy of Keyes' control system. Thus, the Examiner's asserted motivation is merely a conclusory statement failing to establish a proper motivation for combining Keyes and Toelle.

Furthermore, the Examiner's proposed modification runs contrary to the intended purpose of Keyes' system, as described in paragraph 0030:

[0030] Generally speaking, the goal of the system described herein is to be able to provide accurate and up-to-date profit or other economic calculations to provide better profit information on which to make decisions when controlling the operation of the plant 10. These economic calculations combine process measurements with software components and business transaction services to provide an on-line, real-time financial, accounting, and quality measurement system utilizing data verification, validation, reconciliation, archiving, alarm and support analyses, reports, displays, inquiry and search functions for the process.

According to the above-quoted text, the express goal of Keyes is to provide accurate and **up-to-date** profit or economic calculations on which to make control decisions when operating the plant. Keyes intends to provide a system utilizing **real-time** financial measurements. On the other hand, Toelle discloses that its look-up tables is pre-programmed with data, which is determined experimentally according to a series of tests performed on the engine. According to Toelle, where there is a new set of circumstances not previously encountered during testing, the look-up table must be reprogrammed accordingly. See Toelle at col. 6, lines 9-20. This means that Toelle's look-up tables are unable to deal with new circumstances in real-time during the control process. Thus, Keyes would actually **teach away** from the use of Toelle's look-up tables.

Applicants further wish to refer the Examiner to MPEP § 2143.01, which states the following:

If [a] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

As discussed above, if Keyes' economic models for performing real-time calculations were replaced with Toelle's look-up tables, Keyes would be rendered unsatisfactory for its intended purpose of using up-to-date economic calculations and real-time financial measurements to optimize profitability of the plant. Thus, the Examiner's proposed modification of Keyes is improper.

Applicants respectfully submit that the proposed combination of Keyes and Toelle is improper since the Examiner has failed to establish a proper motivation, either from the references themselves, by virtue of the nature of the problem being solved by the references, or by knowledge of one of ordinary skill in the art. Thus, the various rejections under § 103 have been obviated. At least for this reason, Applicants respectfully submit that independent claims 1-20 are in condition for allowance. Thus, reconsideration and withdrawal of these rejections are respectfully requested.

Conclusion

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but to merely show the state of the art, no comment need be made with respect thereto.

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination. Accordingly, the Examiner is respectfully requested to reconsider the outstanding rejections and issue a Notice of Allowance in the present application.

However, should the Examiner believe that any outstanding matters remain in the present application, the Examiner is respectfully requested to contact Jason W. Rhodes (Reg. No. 47,305) at the telephone number of the undersigned to discuss the present application in an effort to expedite prosecution.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,



By

Michael K. Mutter

Registration No.: 29,680

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant